

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of

Atty. Docket

GUOFU ZHOU ET AL.

NL 030091

Confirmation No. 1807

Serial No. 10/542,910

Group Art Unit: 2629

Filed: JULY 20, 2005

Examiner: MANDEVILLE, J.M.

Title: ELECTROPHORETIC DISPLAY PANEL AND DRIVING METHOD THEREFOR

Mail Stop Appeal Brief-Patents  
Board of Patent Appeals and Interferences  
United States Patent and Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450

APPELLANTS' REPLY BRIEF

Sir:

In response to the Examiner's Answers mailed on August 10,  
2009, please consider the following remarks:

REMARKS

Appellants maintain the arguments submitted in the Appeal Brief filed on May 1, 2009 and June 8, 2009 which are incorporated herein by reference. Further, Appellants refute the allegations made in the Examiner's Answer of August 10, 2009.

In particular, pages 8-10 of the Examiner's Answer of August 10, 2009, alleges that the drive means "arranged for controlling" does "not positively recite an explicit or implicit limitation that states that the "drive means" actually performs a function."

(Examiner's Answer, page 9, lines 6-7) Accordingly, it is further alleged that "it stands to reason that any "drive means" for an electrophoretic display panel disclosed in the prior art that is "arranged" in the manner claimed by the applicant and that could produce the results as claimed by the application could anticipate or render obvious the "arrangement" of Claim 1. Simply stated, the limitations in Claim 1 recite that which the "drive means" is arranged to do, rather than that which the "drive means" actually does." (Examiner's Answer, page 9, lines 10-15; emphasis added)

Appellants respectfully disagree and submit that under 35

U.S.C. §112, paragraph six, means for performing a function is a structure feature and, similarly, drive means arranged for controlling also a structural feature that should be accorded patentable weight and cannot be ignored.

It is well known that a functional limitation should be accorded patentable weight. (See, e.g., Ex parte Sherman, 45, USPQ 532, 534 (Pat. Off. Bd. App. 1939):

While the claims contain numerous functional statements, these statements seem to be used for the purpose of clearly defining or differentiating elements which have been positively included in the claims. We see no objection to the use to the functional statement to define an element, even where the element may be set forth by the term "means."

A particular device may have a similar structure to a known device yet be arranged to perform a function which is very different from the similar known device. Take for example two identical processors 1, 2, where a first processor 1 includes instructions or software to configure or arrange the first processor 1 to perform a first function A, and a second processor 2 (identical to the first processor 1, but) is configured or arranged (via different instructions or software) to perform second function

B, which is patentably different from the first function A. In such a case, it is respectfully submitted that the first processor 1 albeit being, in layman terms, 'identical' in 'structure' to the second processor 2, is patentable over the second processor 2, since the first processor 1 is configured or arranged to perform a first function A, which is patentably different from the second processor 2 which is configured or arranged to perform a different function B.

Further, the MPEP in § 2173.01, Claim Terminology, makes clear that "Applicant may use functional language, alternative expressions, negative limitations, or any style of expression or format of claim which makes clear the boundaries of the subject matter for which protection is sought. As noted by the court in In re Swinehart, 439 F.2d 210, 160 USPQ 226 (CCPA 1971), a claim may not be rejected solely because of the type of language used to define the subject matter for which patent protection is sought."

(Emphasis added)

Accordingly, it is respectfully submitted that there is no need to include "actual" performance in the claims. A device or means which is arranged to perform a patentable function is

patentably distinct from another similar device or means which is not arranged to perform this particular function. Accordingly, patentable weight should be given to the related features independent claim 1, such as:

the drive means are further arranged for controlling the reset potential difference of each picture element to enable particles to occupy the extreme position which is closest to the position of the particles which corresponds to the image information. (Illustrative emphasis provided)

In U.S. Patent Application Publication No. 2002/0005832 (Katase), particles are directed towards one extreme position by applying a voltage having an apposite polarity to attract the particles to one extreme position. Even if Katase discloses a reset data signal that allows particles to occupy either extreme position, such a disclosure still does not disclose or suggest any relationship between the current position of particles and their final or extreme position, let alone disclosing or suggesting controlling the reset potential difference of each picture element to enable particles to occupy the extreme position which is closest to the position of the particles which corresponds to the image information, as recited in independent claim 1.

Further, on pages 11-12 of the Examiner's Answer, it is alleged that having "additional reset duration," as recited in independent claim 1, is "subjective". (Examiner's Answer, page 11, line 9)

Appellants respectfully disagree and submit that independent claim 1 specifically recites (illustrative emphasis provided):

the drive means being arranged for controlling the potential difference of each picture element to be a reset potential difference having a reset value and a reset duration for enabling particles to substantially occupy one of the extreme positions, and subsequently

to be a picture potential difference for enabling the particles to occupy the position corresponding to the image information,

wherein

the drive means are further arranged for controlling the reset potential difference of each picture element of at least a number of the picture elements to have an additional reset duration.

As clearly recited in independent claim 1, the drive means is arranged to control the potential difference of each picture element to be a reset potential difference having a reset value and a reset duration for enabling particles to substantially occupy one of the extreme positions. The drive means are further arranged to control the reset potential difference of each picture element to

have an additional reset duration. Thus, the drive means are arranged to control the reset potential difference to have a reset duration for enabling particles to substantially occupy one of the extreme positions, and additional reset duration.

Thus, the additional reset duration is a duration beyond or in addition to the reset duration that enables particles to substantially occupy one of the extreme positions, as recited in independent claim 1, and is thus not a subjective value. Rather, as described on page 6, lines 30-32 and shown in FIG 3A of the present application, for example, the additional reset duration from  $t_2'$  to  $t_2$ , is related to, and in addition to, the reset duration  $t_1$  to  $t_2'$  that enables particles to substantially occupy one of the extreme positions.

Further, as correctly noted by the Examiner, "Katase does not explicitly recite the implementation of an "additional reset duration." (Examiner's Answer, page 12, lines 10-11) FIGs 8-10 and 11A-11B of U.S. Patent Application Publication No. 2003/0137521 (Zehner) are cited in an attempt to remedy the deficiencies in Katase.

Zehner shows in FIGs 9-10 "a "reset" step in which all the

pixels of the display are driven alternately to their black and white states." (Zehner, paragraph [0150], lines 1-3) As clearly shown in FIGs 9-10, the pixels are driven to maximum/minimum points, where such points have a minimal duration which is enough to achieve extreme or black/white levels, without any additional duration beyond such a minimal duration. There is simply no disclosure or suggestion in Katase and Zehner, alone or in combination, of any "drive means [that] are further arranged for controlling the reset potential difference of each picture element of at least a number of the picture elements to have an additional reset duration," as recited in independent claim 1. (Illustrative emphasis provided)

Based on the foregoing, it is respectfully submitted that independent claim 1 is allowable, and allowance thereof is respectfully requested. In addition, it is respectfully submitted that claim 3 is also allowable at least based on its dependence from independent claim 1.



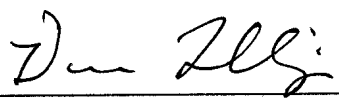
In addition, Appellants deny any statement, position or averment of the Examiner that is not specifically addressed by the foregoing argument and response. Any rejections and/or points of argument not addressed would appear to be moot in view of the presented remarks. However, the Appellants reserve the right to submit further arguments in support of the above stated position, should that become necessary. No arguments are waived and none of the Examiner's statements are conceded.

CONCLUSION

Claims 1 and 3 are patentable over Katase and Zehner.

Thus, the Examiner's rejections of claims 1 and 3 should be reversed.

Respectfully submitted,

By   
Dicran Halajian, Reg. 39,703  
Attorney for Applicant(s)  
October 5, 2009

**THORNE & HALAJIAN, LLP**  
Applied Technology Center  
111 West Main Street  
Bay Shore, NY 11706  
Tel: (631) 665-5139  
Fax: (631) 665-5101